

## Cluster Fruit Bearing Noni Identified in Andaman & Nicobar Islands

Jaisankar, I., Augustine Jerard, B., Velmurugan, A., Jaya Kumaravaradan, R. and Rajiv Arvind

ICAR- Central Island Agricultural Research Institute, Port Blair 744 105

Corresponding author: [ijaisankar@yahoo.com](mailto:ijaisankar@yahoo.com)

Noni (*Morinda citrifolia*) is a small evergreen tree that grows well under challenging environmental conditions. It occurs from elevations near sea level up to 800 m above mean sea level, endures temperature up to 39°C in tropical humid island conditions, thrives well in infertile, acidic, alkaline and sandy carbonatic soils of atolls that are poorly suited to agriculture, and tolerates brackish tidal pools and flooded conditions. Fruits are the main commercial and economic part of Noni although the roots, bark, stem are also used for various medicinal and industrial preparations.

As Noni is believed to have originated from Southeast Asia and spread to the rest of the tropics by oceanic currents and domestication, the species exhibits rich genetic diversity in its wilderness across Andaman & Nicobar Islands. CIARI, through its concerted research efforts, collected the elite germplasm of Noni from different parts of the Island and developed four promising varieties viz. CIARI Samridhi, CIARI Sanjivini, CIARI Sampada and CIARI Rakshak through Selective Breeding.

In 2006-07, CIARI promoted Noni cultivation as an alternate farming under Tsunami effected sea water inundated areas across Andaman & Nicobar Islands. Since then many farmers and a Corporate are cultivating the crop on a small and large scale respectively as either sole crop or intercrop in coconut and arecanut plantations. The harvested fruits are converted into juice at a processing plant in Mithakhari and marketed to various pharmaceutical and nutraceutical companies in mainland India.

Botanically, Noni belongs to the family Rubiaceae which is recognizable by simple, opposite leaves with interpetiolar stipules and sympetalous actinomorphic flowers. The tree grows up to a height of 30 feet whose branches exhibit sympodial growth, flowering at alternate

nodes, and leaves opposite, pinnately veined and glossy. The ovoid shaped fruit produced solitarily at alternate nodes is a syncarp i.e. a fusion of multiple fruits which attains a length of 10 cm and a diameter of 6 cm at maturity while turning from green to translucent yellowish-white colour when fully ripe. Seeds have a distinct air chamber that helps retaining viability even after months of floating in water.

Offered with assured market by the processing plant, more and more farmers are coming forward to cultivate Noni. Hence, CIARI is working on developing new high yielding varieties for the benefit of farmers. In this regard, a cluster fruit bearing tree has been identified at its Garacharma Research Farm wherein a cluster of 4 to 5 obovate elongate fruits are borne at each of the alternate nodes. The very large sized fruits weighing 307 g each attain a maximum length of 11.70 cm and width 5.9 cm. The yellowish green fruits have a smooth texture with green floral eye rings.



The identified tree is being propagated through stem cuttings to confirm the perpetuation of cluster fruit bearing character in future generations. Once the Distinctness, Uniformity and Stability (DUS) of the tree are standardized, the germplasm will be released as a variety for the benefit of farmers in Andaman & Nicobar Islands.